

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-5. (Canceled)

6. (New) A metallurgical furnace, such as a blast furnace, melting or melt-reduction furnace, provided with a refractory lining and an outer furnace steel jacket (15), comprising copper cooling plates (10, 10'), wherein a flow of cooling medium flows through the cooling plates arranged between the furnace steel jacket (15) and the refractory lining, wherein cooling medium pipes (13, 14) of the copper cooling plate (10, 10') provided for supplying and removing the cooling medium are guided through the furnace steel jacket (15) to the exterior and are gas-tightly welded to the furnace steel jacket (15), wherein the copper cooling plate (10, 10') is connected free of play in all spatial directions to the furnace steel jacket (15), in addition to attachment by

means of the cooling medium pipes (13, 14) welded to the furnace steel jacket (15), by at least one fixed-point fastening element (11) that is welded to the furnace steel jacket (15), the at least one fixed-point fastening element being arranged within at least one of the upper part and the lower part of the copper cooling plate immediate proximity of the cooling medium pipes.

7. (New) A metallurgical furnace, such as a blast furnace, melting or melt-reduction furnace, provided with a refractory lining and an outer furnace steel jacket (15), comprising copper cooling plates (10, 10'), wherein a flow of cooling medium flows through the cooling plates arranged between the furnace steel jacket (15) and the refractory lining, wherein cooling medium pipes (13, 14) of the copper cooling plate (10, 10') provided for supplying and removing the cooling medium are guided through the furnace steel jacket (15) to the exterior and are gas-tightly welded to the furnace steel jacket (15), wherein the copper cooling plate (10, 10') is connected free of play in all spatial directions to the furnace steel jacket (15), in addition to attachment by means of the cooling medium pipes (13, 14) welded to the

furnace steel jacket (15), by at least one fixed-point fastening element (11) that is welded to the furnace steel jacket (15), at least one of the fixed-point fastening elements (11) being arranged at the center of the copper cooling plate (10, 10').

8. (New) The metallurgical furnace according to claim 6, wherein the copper cooling plate (10, 10') is additionally fastened fixedly to the furnace steel jacket (15) by at least one movable point fastening element (12), for example, a fastening screw, which allows thermal expansion movements of the copper cooling plate (10, 10') in the horizontal and vertical direction.

9. (New) The metallurgical furnace according to claim 7, wherein the copper cooling plate (10, 10') is additionally fastened fixedly to the furnace steel jacket (15) by at least one movable point fastening element (12), for example, a fastening screw, which allows thermal expansion movements of the copper cooling plate (10, 10') in the horizontal and vertical direction.

10. (New) The metallurgical furnace according to claim 6, wherein at least some of the cooling medium pipes (13, 14) are welded without use of a compensator directly to the furnace steel jacket (15).
11. (New) The metallurgical furnace according to claim 7, wherein at least some of the cooling medium pipes (13, 14) are welded without use of a compensator directly to the furnace steel jacket (15).